

REMARKS

Applicants' representative appreciates the courtesies extended during the telephonic interview of August 5, 2008. The amendments and remarks made herein are in accordance with those discussed during the telephonic interview.

The Final Office Action mailed May 28, 2008 considered claims 1-28. Claims 1, 11-14, 17, 18, 21 and 26-28 were rejected under 35 U.S.C. 103(a) as being unpatentable over Phaal (US 6,006,269) hereinafter *Phaal* and further in view of Belissent (US 6,799,276) hereinafter *Belissent*. Claims 2-5, 7-9, 15, 16, 23, 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Phaal* and in view of *Belissent*, as applied to claims 1 and 14 above, and further in view of Mukundan et al. (US 2007/0016639) hereinafter *Mukundan*. Claims 6, 10, 19, 20 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Phaal* and further in view of *Belissent* as applied to claims 1 and 14 above, and further in view of Mincher et al. (US 5,604,869) hereinafter *Mincher*. Claim 22 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Phaal* and in view of *Belissent* as applied to claim 14 above, and further in view of Garg et al. (US 2002/0138613) hereinafter *Garg*.¹

By this amendment, claims 1, 6, 7, 10-12, 14, 26, and 27 are amended.² Claim 13 is cancelled. Accordingly, claims 1-12 and 14-28 are pending, of which claims 1, 14, 26, and 27 are the independent claims at issue.

The invention is generally directed to regulating client requests in an electronic messaging environment. For example, claims 14 recites a method for regulating client requests so as to provide an improved user experience when the messaging server is experiencing increased load. Claim 14 define receiving a client data request from a client. The client data request requests that message related data for a user of the client be returned to the client. The computer system determines that it is unable to process the client data request based on the current load of computer system. The current load is indicative of resource consumption at the computer system as a result of the computer system sending message related data to other clients

¹ Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

² Support for the amendments to the claims are found throughout the specification and previously presented claims, including but not limited to paragraphs [0025]-[0027], [0038], [0045]-[0048], [0054] and Figure 1.

from among a plurality of different clients. The determination made subsequent to receiving the client data request.

A wait hint is adaptively generated for return to the client. The adaptively generated wait hint includes an indicated wait time, indicating an amount of time to the client that the client is to wait before resending the client data request requesting message related data for the user to the computer system. The wait time reduces the load at the computer system. The adaptively generated wait hint is generated by a wait hint generation algorithm. The wait hint generation algorithm is configured to adaptively generate a wait hint each time the client data request requesting message related data for the user is received but not processed. The wait hint is generated based on how many times the client data request was previously received but not processed up to a specified number of times after which the data request is to be processed. A server response that includes the adaptively generated wait hint is sent to the client. The adaptively generated wait hint indicates to the client to wait the indicated wait time before resending the client data request requesting message related data for the user.

Claim 27 is a computer program product claim corresponding to method claim 14. Claim 1 is a claim similar to claim 14 from a client perspective. Claim 26 is computer program claim corresponding to method claim 1.

Applicants respectfully submit that the cited art of record does not anticipate or otherwise render the amended claims unpatentable for at least the reason that the cited art does not disclose, suggest, or enable each and every element of these claims.

Phaal describes an admission control system with message admitted or deferred for re-submission at a later time on a priority basis. Applicants' submissions with respect to *Phaal* a addressed in detail in response to the prior office action.

Belissent describes method and apparatus for restraining connection request stream associated with high volume burst client in a distributed network. Clients that generate large numbers of connection, such as, for example, TCP/IP, requests in a short period of time can disrupt operations of a server. (Col. 2, ll. 1-6 and Col. 4, ll. 43-54). When a connection requests by a client exceed a slowdown threshold during a previously throttling interval, a wait time is used to delay incoming connections from the client during the next throttling interval. (Col. 3, l. 66 – Col. 4, l. 6). The wait time is related to number of connection requests above the slowdown threshold (essentially a connection request rate). (Col. 4, ll. 6-8). Slowdown

thresholds are client specific and vary based on client systems. (Col. 5, ll. 49-65). When a client exceeds its slowdown threshold, restrictor unit 216 slows down incoming requests by a wait time W for the next throttling interval. (Col. 6, ll. 7-10). That is, the server delays completing a connection by time W. (Col. 6, ll. 10-14 and Figure 3B).

However, the server does not reject processing of a connection request and instruct the client to attempt to reconnect at a later time. All connections are eventually processed to completion with no further action from the client, albeit on a delayed basis. Thus, the wait interval can not be based on how many times a client has previously requested a specified connection but that specified connection was not processed to completion. Further, the server manages any wait times solely on its end to control workload, no data is sent from server to client to attempt to adjust client behavior to in response server workload.

Mincher describes a method and system for sending and responding to information requests in a communications network. *Mincher* is primarily directed to messages where any of a number of nodes on a network can respond but only a single response is needed. (Col. 4, l. 63 – Col. 5, l. 17). In some embodiments, when a node is to send this type of message the media is otherwise busy and the node delays retrying by some time interval. (Col. 7, ll. 35-37). A back off algorithm can randomize time intervals to reduce collisions. (Col. 8, ll. 30-33). However, *Mincher* is limited to gaining access to network media and does not include internodes communication. That is, a node manages its own wait time, and although the wait can vary, no data is sent from one node to another node to attempt to adjust another node's behavior in response to media unavailability. Further, the node does not receive communication from other nodes until media access is granted.

Accordingly, the cited art fails to teach or suggest, either singly or in combination:

an act of receiving a client data request from a client, the client data request requesting that message related data for a user of the client be returned to the client;

an act of determining that the computer system is unable to process the client data request based on the current load of computer system, the current load indicative of resource consumption at the computer system as a result of the computer system sending message related data to other clients from among the

plurality of different clients, the determination made subsequent to receiving the client data request;

an act of adaptively generating a wait hint for return to the client, the adaptively generated wait hint including an indicated wait time, the wait time indicating an amount of time to the client that the client is to wait before resending the client data request requesting message related data for the user to the computer system to thereby reduce the load at the computer system, the adaptively generated wait hint generated by a wait hint generation algorithm, the wait hint generation algorithm configured to adaptively generate a wait hint each time the client data request requesting message related data for the user is received but not processed based on how many times the client data request was previously received but not processed up to a specified number of times after which the data request is to be processed; and

an act of sending a server response that includes the adaptively generated wait hint to the client to indicate to the client to wait the indicated wait time before resending the client data request requesting message related data for the user.

as recited in claim 14, when viewed in combination with the other limitations of claim 14. For at least this reason claim 14 also patentably defines over the art of record. For at least this same reason claim 27 also patentable defines over the art of record.

The cited art also fails to teach or suggest, either singly or in combination:

an act of request requesting that message related data for a user of the computer system be returned from the messaging server to the computer system;

an act of receiving a server response responsive to the data request from the messaging server, the server response including an adaptively generated wait hint generated at the messaging server, the adaptively generated wait hint being an indication that the messaging server was unable to process the data request and indicating that the computer system is to wait a specified wait time before sending another data request requesting the message related data for the user, the adaptively generated wait hint generated by a wait hint generation algorithm at the messaging server, the wait hint generation algorithm configured to adaptively

generate a wait hint each time the data request requesting message related data for the user is received at the messaging server but not processed, each wait hint generated based on how many times the data request was previously received at the messaging server but not processed, up to a specified number of times next data request is processed at the messaging server to return the message related data for the user;

an act of waiting the specified wait time before resending the data request requesting message related data for the user to thereby reduce the load on the messaging server; and

an act of resending the data request requesting message related data for the user subsequent to waiting the specified wait time.

as recited in claim 1, when viewed in combination with the other limitations of claim 1. For at least this reason claim 1 also patentably defines over the art of record. For at least this same reason claim 26 also patentable defines over the art of record.

Since each dependent claim depends from claim 1 or claim 14 each of the dependent claims are also patentably defines over the art of record at least for the same reason as their corresponding based claim respectively. However, many of the dependent claims also independently distinguish over the cited art. For example, the cited are or suggest, either singly or in combination the limitations of claim 6, including "an act of the computer system randomizing the specified wait time included in the adaptively generated wait hint received from the server to reduce the chances of resending the next request requesting message related data for the user at the same time as one or more other different computer systems that also received the adaptively generated wait hint in response to requesting data from the messaging server". For at least this further reason claim 6 independently distinguishes over the cited art.

Claims 7 is amended to recite "utilizing the wait hint at a client side module that attempts to improve user experience when interacting with the messaging server." Support for the amended to claim 7 is found at least an paragraph [0025]. Based on the amendment to claim 7, Applicants respectfully request that the 35 USC 112, first paragraph, rejection be withdrawn.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the

purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at 801-533-9800.

Dated this 28th day of August, 2008.

Respectfully submitted,



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